

REMARKS

The Office Action mailed January 2, 2003 has been received and the Examiner's comments carefully reviewed. Claims 1, 3-15, and 40-44 have been amended. Applicants have included herewith a document entitled, "VERSION WITH MARKINGS TO SHOW CHANGES MADE" to indicate how the claims have been amended. Claims 47 and 48 have been added. No new subject matter has been added. These amendments are formal in nature and should not be understood to further limit the scope of the claims. Claims 1-48 are currently pending. Claims 16-39, 45, and 46 have been withdrawn from consideration.

Rejections Under 35 U.S.C. §112

The Examiner rejected claims 1-15 and 40-44 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which the applicant regards as the invention. Applicants have amended the claims 1, 3-15, and 40-44 to address the issues raised by the Examiner. Applicants respectfully submit that claims 1-15 and 40-44 are now in condition for allowance.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 1-3 and 8-13 under 35 U.S.C. §103(a) as being unpatentable over Fehr in view of Headrick, Hellstrom et al. and Snyder. Applicants respectfully traverse this rejection.

Fehr discloses a framing extrusion having a specific profile. The profile is used around the entire perimeter of the door opening (i.e. 15, 16, 17 and 19). In particular, FIG. 3 shows the profile used as vertical jambs 17, 19, and FIG. 4 shows the profile used as a header 16 and a sill 15.

Independent claim 1 of the present application recites an entryway system including a threshold member joined to a frame. An end cap corner key is positioned between the frame and the threshold member. Fehr does not teach or suggest an end cap positioned between the sill 15 and a frame. The Examiner relies upon the combination of Headrick and Fehr to show the recited limitation.

Applicants respectfully submit that neither Fehr nor Headrick provide the teaching or suggestion to modify the profiles of Fehr to include the end cap of Headrick. Fehr specifically states the profiles are standardized, and thereby can be mitered at their ends and joined together by fusion welding. . . ." Column 8, lines 57-62. Because the profiles are standardized, the end pieces correspondingly match one another, and when mitered provide a seal. There is no teaching in Fehr to modify the Fehr profile to include the Headrick end cap.

There is also no teaching in Headrick to modify the Fehr profile to include the Headrick end cap. In particular, Headrick teaches a sill and end cap assembly. The assembly fits between vertical jambs 52 of a door frame. As shown in FIG. 4, "[a] dado 61 is formed in the bottom of the jamb 52 to accommodate the end cap 36, which protrudes slightly beyond the end of the assembly 11. . . ." Column 6, lines 46-50. Because of the standardized profile of Fehr, incorporating the Headrick end piece would require significant modifications in the vertical jamb profiles. Modifying the vertical jamb profiles of Fehr to include the end caps would jeopardize the structural integrity of the profile's web structure. (See Fehr, column 8, lines 47-53, stating that the profiles includes a substantial amount of structural reinforcing vertical web members and horizontal web members, so as to provide the necessary rigidity as a framing section.) The asserted combination would render the Fehr profile unsatisfactory for its intended use.

For at least these reasons, Applicants respectfully submit that a prima facie case of obviousness to modify the profiles of Fehr to include the end cap of Headrick is lacking. Applicants therefore submit that independent claim 1, and dependent claims 2, 3, and 8-13, are patentable.

The Examiner has relied upon Fehr, Headrick, Hellstrom, and Snyder to show the recited limitations of claim 1. The mere fact that the cited references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the combination. MPEP 2100-98. Further, in determining obviousness, the question is whether the invention as a whole would have been obvious. MPEP 2100-94. As a whole, claim 1 recites an entryway system that adjusts the slab to maintain a sealed system; that is, the system vertically and horizontally adjusts the slab to sealing match the

periphery of the slab to a peripheral weather strip, and the system includes a water tank to drain any accumulated environmental water to the exterior of the sealed system.

Applicants respectfully submit that none of the cited references suggests a combination or modification that accomplishes the claim 1 as a whole.

Because a prima facie case of obviousness to modify the profiles of Fehr to include the end cap of Headrick, and to combine all the cited references to accomplish claim 1 as a whole is lacking, Applicants respectfully submit that independent claim 1, and dependent claims 2, 3, and 8-13, are patentable.

The Examiner rejected claims 4-7 and 40-44 under 35 U.S.C. §103(a) as being unpatentable over Fehr, Headrick, Hellstrom et al. and Snyder, as applied to claims 1-3 and 8-13 above, and further in view of Taber. Claims 14 and 15 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Fehr, Headrick, Hellstrom et al. and Snyder, as applied to claims 1-3 and 8-13 above. Applicants respectfully traverse this rejection.

In view of the remarks regarding independent claim 1, further discussion regarding the independent patentability of dependent claims 4-7, 14 and 15 is believed to be unnecessary. Applicants submit that dependent claims 4-7, 14 and 15 are in condition for allowance.

Independent claim 40 of the present application recites an entryway system including a slab mount to a frame having a threshold member and an end cap corner key. The threshold member includes a water tank. A sealing element is positioned between the end cap corner key and the water tank.

First, for similar reasons as discussed above, a prima facie case of obviousness has not been met for the recited limitations of a threshold member, as characterized, and an end cap corner key.

Second, none of the cited art discloses a water tank sealed by a sealing element positioned between the end cap corner key and the water tank. If a sealing element were to be positioned between the profile of Fehr and the end cap of Headrick, the end cap of Headrick would be rendered inoperable.

In particular, Headrick teaches a frame member 12 having a channel 13 and gutter 27. The channel 13 and gutter 27 are in fluid communication with a trough 42 in the end

cap 36 so that rainwater collected in the channel and gutter flows freely into the end cap trough 42. Columns 5, lines 14-19 and column 6, lines 59-63. Headrick teaches away from positioning a sealing element between the frame member 12 and the end cap 36. Rather, to properly function, Headrick requires fluid communication between the frame member 12 and the end cap 36.

Because a prima facie case of obviousness to combine the cited references is lacking, Applicants respectfully submit that independent claim 40, and dependent claims 41-44, are patentable.

New Claims 47 and 48

New claim 47 has been added and recites an entryway system including a frame having a threshold, first and second end caps secured to the ends of the threshold, a seal, and a door mounted to the frame. The door includes a mortised hinge arrangement having a transition block, a shim positioned adjacent to the transition block, and an adjustable hinge. The mortise hinge arrangement can be adjusted in both the horizontal direction and the vertical direction to provide sealing contact between the door and the seal.

For similar reasons as discussed above with regards to the end cap and threshold limitations, Applicants submit that independent claim 47 and dependent claim 48 are patentable. In addition, Applicants submit that none of the cited references teach or suggest a mortised hinge arrangement including a transition block.

SUMMARY

It is respectfully submitted that present application is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

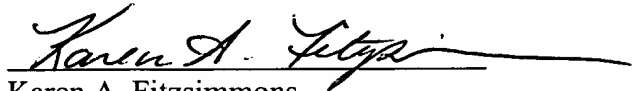
Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct.

Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: April 1, 2003


Karen A. Fitzsimmons
Reg. No. 50,470
KAF:PSTpmc

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Claims 1, 3-15, and 40-44 have been amended as follows:

1. (Amended) An entryway system that can adjust a slab mounted within a frame and maintain a sealed system to exterior weather when closed, the [system comprising an] entryway system comprising:
 - (a) a frame comprising a peripheral weather strip [having at a minimum a resilient weather strip] positioned substantially on the entirety of both sides and the bottom of the frame, the frame bottom additionally comprising a threshold member joined to the frame with an end cap corner key positioned [there] between the frame and the threshold member, the threshold member forming a tank such that the threshold member can accumulate and drain environmental water to the exterior of the frame; and
 - (b) [a] the slab [mounted on the frame with] including an adjustable hinge [member], said hinge being vertically and horizontally adjustable to sealingly match the slab periphery to the peripheral weather strip.
2. The entryway of claim 1 wherein the weather strip is positioned on the top of the frame.
3. (Amended) The system of claim 1 wherein the weather strip is a V-shaped resilient weather strip having a base, [wherein] the base of the V-shaped weather strip being configured [acts] as a hinge member for permitting sealing compression of the weather strip [structure].

4. (Amended) The system of claim 1 wherein the end cap corner key is a first end cap corner key, and wherein the threshold member comprises an extruded aluminum threshold member having [an] a drain exposed to the exterior, the threshold member having first and second open ends, the first open end being sealed with the first end cap corner key and the second open end being sealed with a second end cap corner key, each of the end cap corner [key] keys comprising:

(a) a sealing [means] element to prevent water leakage from the open ends of the threshold member;

(b) a flange [means] extending from the end cap corner key and positioned to support [a vertical member of the framing in the system] the sides of the frame; and

(c) a positioning structure [means] configured to sealingly position [ensure that] the end cap corner key at the open end of the threshold member [is correctly positioned on the hollow profile].

5. (Amended) The system of claim 4 wherein the sealing element of the end cap corner key is [sealed using] a resilient seal.

6. (Amended) The system of claim 4 wherein the [seal comprises] sealing element of the end cap corner key is a polymeric elastomer seal.

7. (Amended) The system of claim 6 wherein the polymeric elastomer seal comprises a foamed polymeric elastomer seal.

8. (Amended) The system of claim 1 wherein the adjustable hinge includes a shim configured to [is] horizontally [adjustable using a shim] adjust the slab to sealingly match the slab periphery to the peripheral weather strip.

9. (Amended) The system of claim 8 wherein the shim of the adjustable hinge is [adjusted by a shim in the door] positioned within the slab.

10. (Amended) The system of claim 8 wherein the shim of the adjustable hinge is [adjusted by a shim in] positioned within the jamb.
11. (Amended) The system of claim 8 wherein adjustable hinge includes [is adjusted by] a mechanical adjustment [in the hinge] configured to vertically adjust the slab to sealingly match the slab periphery to the peripheral weather strip.
12. (Amended) The system of claim 1 wherein the adjustable hinge comprises a two-knuckle hinge[, the hinge is vertically adjustable].
13. (Amended) The system of claim 12 wherein the two-knuckle hinge has an upper knuckle and a lower knuckle, the upper knuckle being supported by a pin that is adjustable in the vertical dimension.
14. (Amended) The system of claim 13 wherein the [adjustable] pin of the two-knuckle hinge is configured to [can] move through an adjustment range of about 0.2 to 10 mm.
15. (Amended) The system of claim 13 wherein the [adjustable] pin of the two-knuckle hinge is configured to [can] move through an adjustment range of about 0.5 to 5 mm.
40. (Amended) An entryway system that can adjust a slab within a frame and maintain a sealed system to exterior weather when closed, the system comprising an entryway comprising:
- (a) a frame comprising a header, a threshold, an end cap corner key, and at least one jamb [in the peripheral frame], the threshold including:
 - (i) a water tank configured to drain environmental water to the exterior of the frame; and
 - (ii) a sealing element positioned between the end cap corner key and the water tank to seal the water tank; and

(b) a slab mounted on the frame, said slab comprising a mortised hinge arrangement [installation location], said [location] arrangement comprising a shim and a two-knuckle hinge, the two-knuckle hinge being adjustable in the vertical dimension [, comprising a two knuckle hinge structure;

wherein the frame comprises a threshold and a corner key, the threshold comprising a trim member, a water tank sealed by the end cap corner key using sealing means between the end cap corner key and the threshold].

41. (Amended) The system of claim 40 wherein the two-knuckle hinge is horizontally adjustable using [a] the shim.

42. (Amended) The system of claim [40] 41 wherein the [hinge is adjusted by a] shim is positioned in the [door] slab.

43. (Amended) The system of claim [40] 41 wherein the [hinge is adjusted by a] shim is positioned in the jamb.

44. (Amended) The system of claim 40 wherein the hinge is vertically adjusted by a mechanical adjustment, and [in the hinge,] is horizontally adjusted by the shim [and/or vertically].

New claims 47-48 have been added.

